



## Copyright

Information furnished by SMC Networks, Inc. (SMC) is believed to be accurate and reliable. However, no responsibility is assumed by SMC for its use, nor for any infringements of patents or other rights of third parties which may result from its use. No license is granted by implication or otherwise under any patent or patent rights of SMC. SMC reserves the right to change specifications at any time without notice.

Copyright © 2005 by

SMC Networks, Inc.

38 Tesla Irvine,

California 92618

## Trademarks

SMC® is a registered trademark; and EZ-Stream, EZ Connect, Barricade and EZ Hub are trademarks of SMC Networks, Inc. Other product and company names are trademarks or registered trademarks of their respective holders.

Rhapsody is a registered trademark of Listen.com, Inc.

Musicmatch is a registered trademark of Yahoo! Inc.

Microsoft, Windows, and Windows Media are trademarks or registered trademark of Microsoft Corp. in the United States and/or other countries.

## Warranty Limitations

The information provided herein may change with product qualification.

SMC Networks, Inc. assumes no responsibility for inaccuracies, errors, or omissions.

SMC Networks, Inc. assumes no responsibility for the use of this information, and all use of such information shall be entirely at the user's own risk. Specifications are subject to change without notice.

Please register this product and upgrade the product warranty at SMC's website: <http://www.smc.com>.



**SMCWAA-G EZ-Stream™ 802.11g  
Wireless Audio Adapter**

## Table of Contents

<b>About the SMCWAA-G EZ-Stream™ 802.11g Wireless Audio Adapter .....</b>	<b>1</b>
<b>Before You Start .....</b>	<b>1</b>
PC Requirements .....	1
Audio System Requirements .....	1
Network Requirements .....	2
Contents of the Box .....	3
<b>Using the Remote Control .....</b>	<b>4</b>
<b>Understanding the Operating Modes and Screen Displays .....</b>	<b>5</b>
Operating Modes .....	5
Browse Mode (Home Menu) .....	5
Play Mode .....	5
Configuration Mode .....	5
Screen Layouts .....	5
Select Screens (Home Menu) .....	5
Play Screens .....	6
Configuration Screens .....	7
Edit Screens .....	8
Other Screens .....	8
<b>Installing the SMCWAA-G .....</b>	<b>8</b>
Essential Information and System Setup .....	8
Connecting the SMCWAA-G to the Network .....	9
Installing the Music Library Software .....	9
Installing Musicmatch .....	9
Installing Rhapsody .....	10
Music Server Connection Problems .....	10
Configuring the SMCWAA-G .....	10
Language Selection .....	10
Using the Configuration Wizard (basic setup only) .....	11
Standby and Restart .....	11
<b>Using the SMCWAA-G .....</b>	<b>11</b>
Listening to Music .....	12
Selecting and Playing Music .....	12
Setting up a Musicmatch Library on your PC .....	12
Listening to Internet Radio Stations .....	12
Using Presets and Favorites .....	13
Saving a Track to a Preset Number .....	13
Playing a Preset Item .....	13
Saving a Track to the Dynamic Playlist .....	13
Selecting and Playing Favorites from the Dynamic Playlist .....	13
Replacing Favorites on the Dynamic Playlist .....	13

<b>Advanced Configuration Management</b>	<b>14</b>
Method 1: Using the Remote Control	14
Select Language	14
Advanced Settings	14
Configure Date/Time	15
Select Profile	15
Device Status	15
Internet Radio	15
Configuration Wizard	15
Network Information Needed by the Configuration Wizard	15
Configuration Wizard Menu	15
Changing Network Settings	16
Method 2: Using the SMCWAA-G PC Utility	17
Installing the Utility	17
Starting the SMCWAA-G PC Utility	17
Managing Profiles Using the SMCWAA-G PC Utility	17
Uploading New Software to the SMCWAA-G	18
Performing a Hard Reset to Factory Settings	19
<b>Firewall Settings</b>	<b>19</b>
<b>Troubleshooting</b>	<b>20</b>
Troubleshooting Chart	20
Error Codes	21
<b>Menu Tree Diagrams</b>	<b>22</b>
Top Level Menus	22
Configuration Mode Menus	23
Configuration Wizard Menus	24
Wireless LAN Configuration Wizard	24
Wired Ethernet Configuration Wizard	25
Music Track Menus	26
Internet Radio Menus	27
<b>Technical Specifications</b>	<b>28</b>
<b>Standards Compliance</b>	<b>30</b>
FCC - Class B	30
Caution Statement	30
FCC Radiation Exposure Statement	30
Industry Canada – Class B	31
EC Conformance Declaration	31
Safety Compliance	31
<b>Glossary of Terms</b>	<b>33</b>



## **SMCWAA-G EZ-Stream™ 802.11g Wireless Audio Adapter**

### **About the SMCWAA-G EZ-Stream™ 802.11g Wireless Audio Adapter**

With the SMCWAA-G EZ-Stream™ 802.11g Wireless Audio Adapter (SMCWAA-G) you are able to break away from your computer and enjoy digital music anywhere in your home. The SMCWAA-G plugs into an audio system and connects, using a wireless or wired Ethernet link to a personal computer (**PC**), or directly to the Internet via an Access Point (**AP**) or wireless router.

Using the SMCWAA-G's remote control and LCD display, you can browse and play tracks stored on your PC, or listen to Internet Radio stations or music tracks available online.

The SMCWAA-G is easy to set up on a wireless or wired Ethernet network. The Musicmatch Jukebox program, running on any PC on the network, enables the SMCWAA-G to browse audio files on the PC and play them back over the audio system.

The SMCWAA-G is a complete package that allows you to enjoy the digital music experience within minutes, out-of-the box.

### **Key Features**

You can:

- Connect your SMCWAA-G to an audio system, then use its Remote Control to browse and play:
  - thousands of Internet radio stations
  - any audio tracks you have stored on any PC on your network
  - thousands of music tracks available on the Internet, through services such as Rhapsody
- Store up to 10 of your favorite radio stations or albums/tracks on shortcut buttons
- Keep 20 more favorites in your own dynamic playlist
- Create your own Internet radio station database online
- Browse music tracks by Song, Album, Artist, Genre, Playlist or All Tracks
- Configure the SMCWAA-G for your home network, using the remote control and LCD display
- Maintain up to three different customized configurations.
- Use the SMCWAA-G PC Utility to install firmware upgrades.

### **Before You Start**

The SMCWAA-G is designed to operate with your PC and a local area network (LAN) or wireless local area network (WLAN), with a connection to the Internet. Please check the following before you start the installation:

### **PC Requirements**

The minimum PC specification is:

- A Pentium Class processor 300MHz, with 128 MB RAM, 150 MB hard drive space
- A 4x CD-ROM drive
- Windows 98SE, ME, 2000 or XP
- Microsoft Internet Explorer 5.0 or later, Netscape Navigator, or other windows compatible Internet browser application
- SVGA or higher resolution monitor (minimum resolution 800 x 600).

### **Audio System Requirements**

Any audio system (amplifier, VCR, DVD, etc.) with an auxiliary (AUX) input.

## Network Requirements

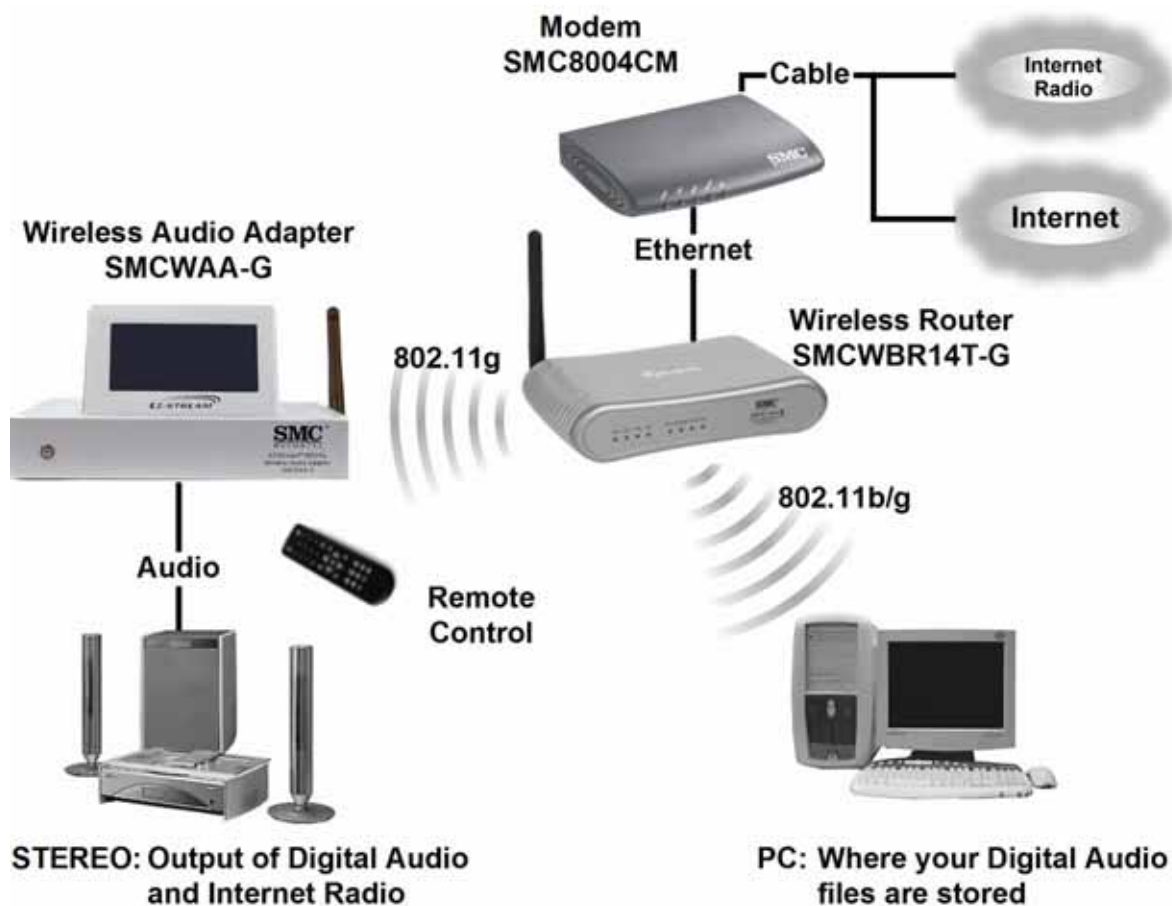
The SMCWAA-G can communicate with your home network using TCP-IP over either an IEEE802.11b/g wireless link or a hard-wired Ethernet link. The network must provide:

- Internet access  
(used to listen to Internet radio stations and online music tracks) and
- Communication between the SMCWAA-G and at least one PC, running a UPnP server application, such as Musicmatch  
(used to play music from the PC's hard disk).

If one PC provides both Musicmatch and Internet connectivity, it will be necessary to enable Internet Connection Sharing (see Windows Help for instructions) or to install a local Proxy Server on the PC.

Two typical network configurations are shown below:

### Wireless LAN Connection



#### Notes:

1. In the wireless mode, the SMCWAA-G must communicate with an Access Point (AP) or wireless router in Infrastructure Mode.  
Please consult your AP/Router documentation for information on system setup.
2. The AP may also integrate Network Router and/or DSL/Cable Modem functions.

## SMCWAA-G EZ-Stream™ 802.11g Wireless Audio Adapter

### Wired Ethernet Connection



### Contents of the Box

Check that the box contains all the following items:








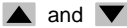















- 1 SMCWAA-G wireless audio adapter
- 1 SMCWAA-G EZ-Stream™ 802.11g Wireless Audio Adapter Quick Install Guide
- 1 audio connector cable (twin RCA connectors at both ends)
- 1 Ethernet cable
- 1 power supply unit with integrated cable
- 1 infra-red remote control, plus two AAA batteries
- An installation CD, which you can use to install:
  - the *Musicmatch PC* jukebox
  - the *Rhapsody* online music service
  - *Acrobat Reader* (needed to view the User Guide on-screen)
  - the *SMCWAA-G PC Utility* and
  - this User Guide, in PDF format.

## Using the Remote Control

The table below describes the functions of all the keys on the remote control in all three operating modes:-



The SMCWAA-G Remote Control

Key	Select and Play Modes	Configuration & Edit Modes
	Standby on/off (short press). Restart SMCWAA-G (press and hold)	
	Information button (see Note 1): switch between <b>Play</b> and <b>Select</b> screens	
	Hotkeys for selecting stored favorites 0 - 9	Enter numbers and text: Repeated presses of the '2' key will scroll through '2','a', 'b', 'c', 'A', 'B' and 'C'.
	Store current station/track as a <b>PRESET</b> . Press, then press required number key	Inactive
	Increase Volume	Toggle upper/lower case
	PLAYLIST: Open Select Menu for Dynamic Favorites list	
	Decrease Volume	Toggle Insert/Replace modes
	Scroll Up / Down (see Note 2) to highlight previous/next menu item Press and hold for fast scroll	
	Return to previous, higher level menu	
	Go to Home Menu	
	Select highlighted menu item	
	Add or remove current station/track to/from the Dynamic Playlist)	
	<b>JUMP TO</b> function - see page 6	
	Skip back through track, album or playlist	Backspace (delete last character)
	Play selected station/track, or Pause currently playing station/track	
	Skip forward through track (press and hold), or skip tracks in album or playlist (press and release)	
	Switch off sound. Press again to switch sound on again	
	Stop Play	
	<b>REPEAT</b> track (press once) Repeat all tracks in album or playlist (press twice)	
	Used to select an item (same function as  )	
	<sup>1</sup> Open Configuration Menu	
	<b>SHUFFLE</b> -play current album/playlist	
	<b>Note:</b> Gray shading denotes key is inactive in <b>Configuration Mode</b>	

Note 1) If pressed while editing, a screen appears asking if you want to Discard Changes.

'No' returns to Edit mode, 'Yes' performs the normal function of the button.

Note 2) These keys can be used to scroll through all characters in Edit mode, but the keypad is usually a quicker method.



## Understanding the Operating Modes and Screen Displays

Your SMCWAA-G has three operating modes and four main LCD screen layouts, as follows:

### Operating Modes

#### *Browse Mode (Home Menu)*

**Browse Mode** is the normal startup mode of the SMCWAA-G. Here, you can browse your locally stored tracks, as well as tracks and radio stations on the Internet, and select what you want to hear.

**Note:** the SMCWAA-G will start in **Configuration Mode (Configuration Wizard)** if it has problems in connecting to the network.

#### *Play Mode*

The **Play Mode** has its own screen display, but the SMCWAA-G can carry on playing while you work in **Browse Mode** or **Configuration Mode**, to select your next track or to change system settings.


#### *Configuration Mode*

This mode must be used when you first install your SMCWAA-G, but you will only ever need it again if you want to change any of the stored system settings.

Basic use of the **Configuration Mode** is described in Configuring the SMCWAA-G on page 10. For the full range of configuration capabilities, see **Configuration Mode Menus** on page 23.


### Screen Layouts

#### *Select Screens (Home Menu)*

The SMCWAA-G normally starts in **Browse Mode**, showing the **Home Menu**, which is a **Select Screen**. To return to the **Browse Mode** at any time, simply press the HOME key (  ) once. A typical **Home Menu** may look like this:








At the top is the **Screen Title**. For the **Home Menu**, this is the **Device Name**, in this case **SMCWAA-G**. You can change this name in the **Configuration Mode**.

Beneath the top line is a number of menu **items**. In the **Home Menu**, each **item** represents a different audio source. The **Type Icons** on the right, in this case , represent folders, each containing further **items**. If there are more than three menu **items**, you can scroll up or down to see the full list. The numbers in the center bottom of the display (**2 / 5** in the example above) show the number of the highlighted **item** and the total number of **items** in the current menu.



**Note:** Some **item** types, such as **Musicmatch**, **Rhapsody** and **Windows Media Connect**, may be available from more than one PC on the network. To avoid confusion, the Network Name of the PC is included with the **item** name. In this example, **Musicmatch (MyPC)** is a Musicmatch library stored the machine called **MyPC**.


**Note:** The computer name can be changed using the Windows Control Panel.

To select from any menu, press the  or  key to highlight the **item** you want. The  icon at the bottom right of the screen means you can now press  or  to select the **item**.

The name of the selected folder (in this case, **Internet Radio**) becomes the **Screen Title** of the next screen, which may look like this:




This is almost the same as the **Home Menu**, but now the  icon appears on the left, which means you can use the  key to go back to the previous (in this case, **Home**) menu screen.

From this screen, if you choose **Genre**, then choose **Big Band** from the next screen, all the available Big Band stations will be listed and the **Type Icon** will change to the Radio Station/Playlist icon, , like this:





The new screen title is **Big Band**, there are now three stations to choose from and **Radio Nostalgia** is highlighted.



If you now press the  (Play/Pause) button, **Radio Nostalgia** will start playing.






You can use the same method to browse albums and tracks in **Musicmatch**, **Rhapsody** or **Windows Media Connect**.

### Notes:

1. The **Type Icon** for a single track is like this: .
2. If the  **Type Icon** appears, this means you are not allowed to use this audio source, and you will need a password to unlock it.

### FINDING ITEMS IN LONG MENUS

For faster scrolling through a long menu, press-and-hold the  or  key.

To search for **items** by initial letter, use the **JUMP TO** function. For example, to jump to the first **item** beginning with a 'b' (or 'B'), press , , , then . Part or whole words can be entered before pressing , to narrow the search.

### Play Screens

While playing music, the screen shows the current date and time at the top, plus information about the music being played.

**Note:** The Date, Time, Time Zone and Date/Time display formats can all be set in the **Configuration Mode**

When listening to an album track, the screen shows how long the track has been playing and its total length, both in minutes and seconds (e.g. **02:17 / 03:45**).

When listening to **Internet Radio**, only the connect time is displayed, in hours, minutes and seconds (e.g. **1:23:15**).


### SMCWAA-G EZ-Stream™ 802.11g Wireless Audio Adapter






Here is a typical Play Screen display:









The icons to left and right of the display provide information about the network connection and the audio buffer level respectively. The left-hand icon shows the signal strength as a vertical bar, when using a wireless LAN connection, or is just the word **LAN**, if the SMCWAA-G is using wired ethernet. The buffer icon normally shows a full-height bar, indicating a full buffer. The height of the bar may vary, but if it falls to zero, the connection will be lost, and you will have to connect again. This should never happen with local sources (networked PCs), but some Internet Radio stations can be unreliable.

#### Notes:

1. Any station, album or track information that will not fit in the display width will scroll horizontally.
2. If scrolling stops, you can start it again by pressing the **INFO** key (  ) twice.

While the station is playing, the play icon (  ) is displayed. At any time, you can press the  button to pause a track, or mute a radio station. The pause icon (  ) is then shown, until you press the  button again or stop the track/station. To stop a track, or disconnect a radio station, either press the stop key (  ) or select a new track/station.

You can adjust the playback volume with the increase (  ) and decrease (  ) keys. A horizontal bar display shows the volume level as you are changing it, and returns a few seconds later to the **Play Screen**. You can switch the sound off, without pausing a track or disconnecting a radio station, by pressing the Mute (  ) button. Press the Mute button again to switch the sound on again.

Press the **INFO** key (  ) to return to last **Select Screen**, where you can prepare your next track or station, or press  to start again at the **Home Menu**. The current track/station will continue to play until the end, or until you select something else (or change the active **Profile**). Press  at any time to return to the **Play Screen**.



**Note:** For more features you can use while playing music, see Listening to Music on page 12.




### Configuration Screens

When first powered up, and whenever you press the **SYSTEM** key (  ), the SMCWAA-G enters the **Configuration Mode**.

The top level **Configuration Menu** looks like this:



This mode uses **Select** screens in the same way as the **Browse Mode**. When an **item** is selected for reconfiguration, its name becomes the title of the next menu screen and the  icon appears on the left, to show that you can return to the previous menu by pressing the  key.

In **Configuration Mode**, **Type Icons** are only used after an **item** to show whether it is enabled ([\*]) or disabled ([ ]). If you select such an **item** (by pressing  or ) , you will be able to change its status and make any other settings required by the new status. Sometimes you will have to select **Yes** or **No** from another menu screen, then return by pressing .

### Edit Screens



The **Edit Screen** is used seen in the **Configuration Mode**.


The keypad on the remote control is used to enter text and numbers, and an icon under the text shows where the next character will be inserted.



Editing is rather like sending a text message on a mobile phone. For example, repeated presses of the '2' key, will scroll through '2', 'a', 'b', 'c', 'A', 'B' and 'C', so you will need to press three times to enter a 'b' (or six times for 'B'). After a pause of about 1 second, the icon moves right for you to enter the next character.

Special characters can be entered by repeated presses of the '0' and '1' keys, as follows:

0	0 * # _ (underscore) ~
1	1 . , ? ! - (hyphen) & <SPACE>

The  key moves the icon left, one character at a time, so you can go back and insert characters. If you make a mistake, use the  key to delete the character before the icon.

If you press  when the icon is at the beginning of the line, this will cancel the edit, and return you to the previous screen.


When you have finished editing the line, press  or , to accept the entry and move to the next screen.

This is a typical **Edit Screen**, where the **Device Name** is being edited.



### Other Screens

Other screens may appear sometimes, to tell you what is happening. Some examples are actions that may take a few seconds, such as saving settings, connecting to a radio station or restarting the device.

If an action is taking some time to complete, a rotating wheel icon () will appear at the bottom of the screen.

**Note:** These displays are all temporary and are not interactive.

## Installing the SMCWAA-G

### Essential Information and System Setup

Check the following before you start installing the SMCWAA-G:

- If your wireless network uses encryption, you will need to know the **WEP** or **WPA** encryption key
- If you use a firewall, check it is correctly configured for the SMCWAA-G (see Firewall Settings on page 19)

## SMCWAA-G EZ-Stream™ 802.11g Wireless Audio Adapter

- If your AP has MAC filtering enabled, add the SMCWAA-G's **MAC Address** to the AP's Access Control List (ACL). This unique 12-character identifier can be found on a label underneath the SMCWAA-G unit. It is also one of the **items** in the Device Status display (see page 15). Please consult your AP documentation for help with this process.

### Connecting the SMCWAA-G to the Network

- Insert the batteries into the remote control unit, observing the correct polarity
- Plug the power supply into a power outlet and the 9V DC power plug into the SMCWAA-G
- Connect the SMCWAA-G output to an audio system.
- If you wish to use a wired Ethernet link, connect an Ethernet cable to the SMCWAA-G.  
**Note:** if you want to use a wireless link, you must not connect a wired ethernet cable to the SMCWAA-G

This photo shows the rear view of a SMCWAA-G, with (from left to right) two RCA audio connectors, a RJ45 wired Ethernet socket, the reset point and the 9V DC power socket.




### Installing the Music Library Software

With Music Library software, you can create a library of audio files on your PC, stored in MP3 or WMA formats. A UPnP (Universal Plug and Play) Server allows your SMCWAA-G to browse through, and play, these files remotely from the PC, using your Local Area Network (LAN).

#### Installing Musicmatch

Your SMCWAA-G comes with a CD that contains the *Musicmatch Jukebox* and *UPnP Server* programs. Perform the following steps to install and set up *Musicmatch*:


1. Start the PC. Log in using an "Administrator" account, if using Windows 2000 or Windows XP. Otherwise you will not be able to install any software
2. Insert the Installation CD and select the **Install MUSICMATCH Jukebox** option in the window that appears on your desktop. If no window appears, browse the CD in Explorer and double-click on **smc.exe**.
3. When installation is complete, you will find a **Musicmatch** folder in your Program list under the Windows Start Menu and the **Musicmatch Jukebox** icon (  ) on your desktop.
4. Start **Musicmatch Jukebox**, by double-clicking the icon or selecting **Musicmatch Jukebox** in the Start > All Programs > Musicmatch folder.
5. Select **Options**, then **Settings**. Click on the **CD Lookup/Connectivity** tab and check the **Enable Music Server** and **Universal Plug and Play** boxes, then click **OK**.
6. **Musicmatch (My PC)** should now appear as one of the **items** in the **Home Menu**.

### Notes:

1. Before you can use *Musicmatch*, you must put some files in the Library. See Setting up a Musicmatch Library on your PC on page 12 or click **Help** in the *Musicmatch Jukebox* menu bar.
2. Your music library will be available using the SMCWAA-G, even when the *Musicmatch Jukebox* is not running.

### Installing Rhapsody

*Rhapsody* is an online music service that gives you unlimited access to thousands of songs and albums, through the Internet browser on your PC. *Rhapsody* brings together a large legal collection of digital music, selected Internet Radio stations, flexible CD burning facilities, and detailed music information. To install *Rhapsody*:

1. Start the PC and log in as an "Administrator", as above.
2. Ensure you have an active Internet connection, as files will be downloaded in the next step. It may also be necessary to disable your firewall temporarily, to allow the download to take place.
3. Insert the Installation CD and select the **Install Rhapsody** option in the window that appears on your desktop. If no window appears, browse the CD in Windows Explorer and double-click on **smc.exe**. Restart your PC, if requested.
4. When installation is complete, you will find a **Rhapsody** folder in your Program list under the Windows Start Menu and the **Rhapsody** icon (  ) on your desktop.
5. Start **Rhapsody**, by double-clicking the icon or selecting **Rhapsody** in the Start > All Programs > Rhapsody folder.
6. Select **Tools > Preferences**, then highlight **Rhapsody Server (UPnP)** and check the **Start UPnP Server once logged in** box. finally, click **OK**.
7. **Rhapsody (MyPC)** should now appear as one of the **items** in the **Home Menu**.  
**Note:** *Rhapsody* is a premium subscription service.

### Music Server Connection Problems

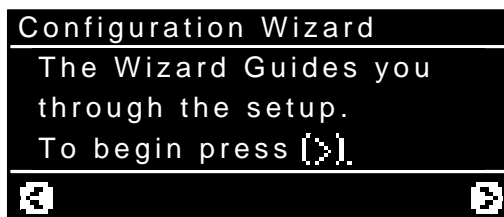
If any of the expected music server **items** is not displayed on the **Home Menu**, consult the section on Troubleshooting on page 20 for possible causes and solutions.

### Configuring the SMCWAA-G

For this procedure, you will need to use the Remote Control and the SMCWAA-G's LCD display. Please read Using the Remote Control on page 4 and Understanding the Operating Modes and Screen Displays on page 5 before proceeding.

#### Language Selection

1. When first connected, the SMCWAA-G will start in the **Configuration Wizard**.
2. Unless you prefer to work in French, Italian, German or Spanish, skip to step 4 below,
3. You can change the language (French, Italian, German or Spanish) using the menu **item Select Language**. Scroll up/down to highlight your preferred language, then select it. All local screen messages will now be in the chosen language.
4. Scroll up/down to **Configuration Wizard** and select it. The Wizard starts with the message:








5. Press  or  to start the Wizard.

### **Using the Configuration Wizard (basic setup only)**

The Configuration Wizard will prompt you to edit the essential settings.



#### **SETTING UP A WIRELESS CONNECTION**

If the SMCWAA-G detects an active wired Ethernet connection, it will only operate in the Wired Ethernet mode (see below). If you want to use a wireless link, make sure the Ethernet cable is not connected before you apply power to the SMCWAA-G. The Wizard will then search for available wireless networks. If it does not find any networks, a message **No Networks Found** is displayed. Start your wireless network and press , then  or , to rescan for networks. When at least one network has been found, the Configuration Wizard will ask you to enter the following details:.

1. **Select Network**  
The **SSIDs (Service Set Identifiers)** of all wireless networks found at startup will be displayed in the **Select Screen**, together with options to **Enter Network SSID** and **Rescan Network**. For a basic setup, ignore these, and select the SSID you want to use.
2. **Enter Encryption Key**  
If the SSID name you select included the word **[encrypted]**, the next screen will prompt you to enter the key for your network. Otherwise you will go directly to the following prompt:
3. **Network IP Settings**  
Choose **Automatic (DHCP)**, unless you have a reason to assign a fixed IP address to your SMCWAA-G. If so, see Changing Network Settings on page 16.
4. **Enable Proxy Server**  
Choose **No** if your network does not use a proxy server. Otherwise, choose **Yes**, and enter details under **Edit Proxy Hostname** and **Edit Proxy Port**.
5. **Apply Settings?**  
When all settings have been made, the message **Apply Settings?** will be displayed. You can then save or discard all changes, using the  (save) or  (discard) buttons.

For full instructions, see Advanced Configuration Management on page 14.

### **Standby and Restart**

When you have finished using the SMCWAA-G, press the Standby button (). The display will become blank and the device will remain in a standby state, consuming virtually no power, until you press  again.

If you need to restart the device, for example, if the wireless link is lost, press and hold the Standby button until the display **Restart Device** appears.

### **Using the SMCWAA-G**

If you see the device name, which is factory-set to **SMCWAA-G**, displayed at the top of the screen, you are ready to listen to Internet Radio and your PC-based music files. **Note:** you can change the device name, see Edit Device Name on page 14.

From the **Home Menu**, you can:

1. find music stored on a PC, or elsewhere on your local network;
2. find online music, using a streaming service, such as *Rhapsody*;
3. select Internet Radio Stations available through the *vTuner* service.

To enter the **Home Menu**, press  on your remote control at any time.













Please refer back to Understanding the Operating Modes and Screen Displays on page 5, for instructions on using the Remote Control to select albums, tracks and Radio Stations.

**Note:** The menu trees for the user modes are on pages 22, 26 and 27.


## Selecting and Playing Music

**Albums, All Tracks, Artists, Artists/Albums, Genres, Genres/Artists and Playlists.**

When you see the *Play icon* () to the right of an **item** you can press  to listen to it.

Key	Function	Screen Icon
	Play/Pause the highlighted <b>item</b>	 or 
	Stop playing the current <b>item</b>	(none)
	<b>INFORMATION</b> key: switch between <b>Play</b> and <b>Select Screens</b>	(none)
	Skip to the next track, or hold for 2+ seconds to fast forward the current track	(none)
	Skip to the previous track (if available)	(none)
	<b>REPEAT</b> the track currently playing. Press again to <b>REPEAT ALL</b> tracks and again to cancel repeating	 or 
	Play <b>items</b> in <b>SHUFFLEd</b> (random) order. Press again to play in normal order. <b>Note:</b> Shuffle can be used with <b>REPEAT ALL</b> (above) to repeat-play a whole album in random order	

Before you can use the SMCWAA-G to browse and play music files (in MP3 or WMA formats) from your PC, you need to add them to your *Musicmatch Jukebox* Music Library.

1. Load music files on your PC and note the folder name(s) where they are stored
2. Start the *Musicmatch* program by clicking on the **Musicmatch Jukebox** desktop icon: .
3. If the Library is not already open click the **My Library** button.
4. Click the **Add to Library** button.
5. Locate the folder on your hard disk noted in step 1 and select the music files to be added to the Music Library. Click the **Add** button to add the files to the Music Library, then click **Exit**.

## Listening to Internet Radio Stations

12








## SMCWAA-G EZ-Stream™ 802.11g Wireless Audio Adapter

The available categories will depend on the level of service you have installed, but will include **items** like: **My Favorites**, **Genres**, **Countries**, **New Stations**, **Popular Stations** and **Help**.

To store station names in **My Favorites**, log on to the website shown in the first **item** of the Help Menu, and register the SMCWAA-G, using the ID number in the second **item** - which is also the **MAC Address** of the SMCWAA-G. You will need to register by entering your email address and a password of at least 6 characters. Then you can start to build up a set of **My Favorites**, sorted into user-defined **Groups**. This list can be automatically downloaded to your SMCWAA-G every day, or you can update it manually at any time (see Internet Radio on page 15).



More information about *vTuner* is available by following the other two **items** in the **Help Menu**.

When you see the Playlist/Radio icon (e.g. **Radio XYZ** ) , you can highlight the **item** and press the Play/Pause button (  ) to connect to the station. During the connection process, a rotating wheel icon will appear in the center bottom of the display. If the station is unavailable, the message **Station down** will appear after a while. Try again later!



Press  to temporarily mute the station, and again to resume listening. Press  to disconnect. As above,  can be used to switch between Station/track information and an Internet Radio Station **Select Screen**.

### Using Presets and Favorites

There are two features of the SMCWAA-G that allow you to find your favorite Internet Radio stations, albums, artist lists, playlists or tracks (all are just called '**tracks**', below) quickly:

1. You can save up to 10 **tracks** as **Presets**, for instant access by pressing one of the number keys  to .
2. You can also save up to 20 additional **tracks** in a **Dynamic Playlist**.


#### *Saving a Track to a Preset Number*

Select a **track** in the normal way, and check that it is active by playing it. Now press the **PRESET** button (  ), followed the number key you want to use to play the **track** (e.g.  ). The message '**Preset stored at 2**' will appear briefly. To change a **preset**, simply preset a different **track** to the same key.

#### *Playing a Preset Item*



At any time, simply press the relevant number button and the preset **track** will play.

#### *Saving a Track to the Dynamic Playlist*



To save a **track** in the **Dynamic Playlist**, first start the **track**, then press the **(UN)MARK** button (  ). A message '**Favorite added**' appears briefly on the screen, or '**Item already exists**', if you try to save the same **track** twice.

**Note:** If you try to store more than 20 **items** in the Dynamic Playlist, a '**List Full**' message appears on the screen, and you must then remove at least one **item** before adding any more.

#### *Selecting and Playing Favorites from the Dynamic Playlist*

At any time, simply press the **Playlist** button (  ) to display the playlist of up to 20 **s**. Then Scroll up/down to highlight the **track** you want to hear, and press the  button to play it.

#### *Replacing Favorites on the Dynamic Playlist*

To remove a track from the playlist, first start it playing, then press the **(UN)MARK** button (  ). A message **Favorite removed** will appear briefly on the screen. You can then play a new **track** and store it by pressing .

## Advanced Configuration Management

There are two ways to change the setup of the SMCWAA-G. You can use the Remote Control and the LCD display or you can use the SMCWAA-G PC Utility running on any PC that can communicate with the SMCWAA-G.

**Note:** The menu tree structures for the Remote Control method are shown on pages 23 and 24.


With just five exceptions, all configuration settings can be changed by either method. The exceptions are:

1. Selecting a **Language** (Remote Control only)
2. Setting **Date & Time** information and formats (Remote Control only)
3. Changing **Internet Radio** list settings (Remote Control only) and
4. Uploading new firmware (SMCWAA-G PC Utility only).
5. Changing the name of a Profile (SMCWAA-G PC Utility only).

**Note:** The SMCWAA-G PC Utility cannot be used until the SMCWAA-G has been set up, using the Remote Control, as described in Configuring the SMCWAA-G on page 10.

Simple tasks, not requiring much editing of text or numbers, can easily be done with the remote control, but the SMCWAA-G PC Utility is better for editing text and numbers, as it uses the PC's keyboard and screen.

### Method 1: Using the Remote Control

To enter **Configuration Mode**, press the **SYSTEM** key (  ) on the remote control to display the **Configuration Menu**, which contains some or all of the following **items**, depending on settings:

#### Select Language

Scroll up/down to the **Select Language item**, and select it. Scroll up/down to highlight your language, then select it. All future screen messages will then be displayed in that language. **Note:** The display language cannot be set by the SMCWAA-G PC Utility.

#### Advanced Settings

This menu contains three **items**:

##### PROFILE MANAGEMENT

If this **item** is followed by an asterisk in brackets, **[\*]**, **Profile Management** is enabled. If there is a blank space between the brackets, **[ ]**, it is disabled.



To change, select the **Profile Management** menu, select **Enabled** or **Disabled** as required, then return to the **Advanced Settings** menu by pressing .

##### KEY MANAGEMENT

This operates in the same way as **Profile Management**, and must be enabled if more than one Encryption Key is needed.

**Note:** Key Management is always available when using the SMCWAA-G PC Utility.

##### EDIT DEVICE NAME

The default name is **SMCWAA-G**. If **Profile Management** is enabled, you can enter your own names for any of the three available profiles, initially called **Profile1**, **Profile 2** & **Profile 3**. Select **Edit Device Name**, then select **Change** from the next menu. Edit the name, press , then return to the **Advanced Settings** menu (i.e. press ).

**Note:** The device name can also be changed using the SMCWAA-G PC Utility (see Editing a Network Profile on page 18).

### ***Configure Date/Time***

The date and time formats can be set by selecting this menu . First the **Select Time Zone** menu offers a choice of 32 standard zones, then **Daylight Saving** can be **enabled** or **disabled** and, finally, the **Select Time Format** menu offers 5 display formats for the date and time, which are obtained automatically from the Internet.

### ***Select Profile***

If **Profile Management** is enabled, the **Select Profile** item will be seen. It can be used to change the active **Profile**. The active profile is identified by an asterisk ( [\*] ). To change profile, simply highlight the new profile and select it. The SMCWAA-G will then display the message **Restart Device** while the new **Profile** is being activated.

### ***Device Status***

Select this useful **item** to scroll up/down through a list of all settings in the active **Profile**. This is pure information – nothing can be changed while scrolling through this .

### ***Internet Radio***

Using an Internet login account, you can set up personalized radio favorite lists with your web browser and either have them downloaded daily to your SMCWAA-G automatically, or download manually, whenever you want.

The three **items** in this menu allows you to:

1. Show the **Radio List Version** currently installed on the SMCWAA-G,
2. Enable/Disable **Automatic Update** (using the [ \* ] and [ ] icons) and
3. Start a **Manual Update** immediately

**Note:** The Internet Radio options cannot be set using the SMCWAA-G PC Utility.

### ***Configuration Wizard***


The SMCWAA-G **Configuration Wizard** guides you through the process of configuring network profiles. It is used when you want to use the remote control to:

- Install the SMCWAA-G for the first time (see Configuring the SMCWAA-G on page 10)
- Make changes to your network profile settings or
- Explore the more advanced options offered by the SMCWAA-G.

### ***Network Information Needed by the Configuration Wizard***

The **Configuration Wizard** guides you through the setup process, prompting you to select or edit all the settings for any of the available SMCWAA-G Profiles.

#### **Notes:**


1. The SMCWAA-G determines some settings automatically during its search for available networks. Therefore it may not need to prompt you for all of settings during the process described below.
2. You can leave the **Configuration Wizard** at any time by pressing  again. You will then be asked to confirm that you want to exit the Wizard and discard all changes.

### ***Configuration Wizard Menu***

#### ***STARTING THE CONFIGURATION WIZARD***

The **Configuration Wizard** will start automatically the first time you power up your SMCWAA-G.

To start the **Configuration Wizard** at a later time:

1. Press  to display the **Configuration** menu.

- 

**Notes:**

1. This process requires you to know some technical details of how your network is set up. If you are unsure of any of the settings, consult the person who set up your network, or refer to the appropriate network documentation.
2. Please refer back to Edit Screens on page 8 for instructions on entering and changing text and numbers, using the Remote Control.



## Changing Network Settings

## SELECTING A PROFILE

If **Profile Management** is enabled, you will be prompted to **Load Profile**. Select one of the three **Profiles** for editing. Their default names are **Profile 1**, **Profile 2** and **Profile 3**, but they can be renamed, using the SMCWAA-G PC Utility. If **Profile Management** is disabled, the Wizard will start at the next **item**.

## SELECTING A WIRELESS NETWORK

At the **Select Network** menu, follow these steps to select the **SSID** for the wireless network profile you are editing:

1. If more than one wireless network is available, scroll up/down and select the **SSID** you want to use.
1. If the **SSID** is followed by **'(encrypted)'**, you will be asked to accept (  ) or **change** the **WEP** or **WPA** encryption key. For security reasons, the current key will be shown as a row of asterisks, **\*\*\*\*\***.
2. If you want to set up a network that is not currently active, select **Edit Network SSID** and enter a new **SSID**, which must contain between 2 and 32 alphanumeric, case-sensitive characters.
3. Press  when you have finished setting the **SSID**.

## SELECTING A NETWORK TYPE

If you have used **Edit Network SSID**, the **Select Network Type** menu will appear. Always select **Infrastructure**, as you should be using your SMCWAA-G with a wireless Access Point (AP) or a wireless router. The **Ad-hoc** mode is not currently supported.

## SELECTING ENCRYPTION SETTINGS

If you see the **Select Encryption** menu, select:

- **No** if encryption is not used on the wireless network or
- **WEP** or **WPA**, if encryption is used.

If you select **WEP** or **WPA**, and **Key Management** is disabled, you will be prompted to **Enter Key1**.

If **Key Management** is enabled, you will see the **Select Key Index** menu and you must select one of the four possible keys for editing. If a key already exists in the current profile, a row of asterisks (\*\*\*\*\* ) will be displayed in place of the key value.

As you enter the key, the **Key Type** and **Key Length** will be displayed in the top of the screen, based on what you have entered: i.e. **ASCII** or **Hex**, **64 bit** or **128 bit**. Press **OK**, then select **Exit Key Editing** and select the required **key** if you see the **Select Key** menu.

## SELECTING NETWORK IP SETTINGS

At the **Network IP Settings** menu, choose **Automatic (DHCP)** if your network uses **DHCP** or **Static IP Address**, if you want to assign a fixed IP address for your SMCWAA-G.

If you choose **Static IP Address**, you will be prompted to edit/confirm the **IP Address** of the SMCWAA-G, the **Subnet Mask**, the **Gateway**, the **DNS Server Preferred** and (optionally) the **DNS Server Alternate**.

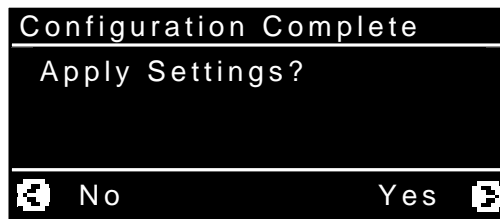
## SMCWAA-G EZ-Stream™ 802.11g Wireless Audio Adapter

### ENABLING A PROXY SERVER

1. If you see the **Enable Proxy Server** menu select **No** or **Yes**, depending on whether or not your network uses a proxy server.
2. If you choose **Yes**, you will be prompted to edit/confirm the **Proxy Hostname** (example: **proxy.mycompany.com**) and then the **Proxy Port** (example: **8080**). Press **OK** after entering all **Proxy** settings

### COMPLETING THE CONFIGURATION

When all required settings have been entered, the **Configuration Wizard** will display the message:



Press **OK** to save your changes. If **Profile Management** is enabled, the **Save to Profile** menu will appear.

Highlight the chosen profile and press **OK** to finish. The message **Applying Settings** will be briefly displayed, followed by **Restart Device**, if the active **Profile** has just been altered. The SMCWAA-G will display the **Configuration Menu** if an inactive profile was changed, or the **Home Menu** if it has been restarted.

**Note:** If the message **No Network Found** or **Network Error -> check config** appears, the SMCWAA-G could not connect to any network: please refer to Troubleshooting on page 20.

## Method 2: Using the SMCWAA-G PC Utility

### Installing the Utility

The SMCWAA-G PC Utility is a program that allows you to upload new software for your SMCWAA-G, but it can also be used to display and configure the user-definable **Profiles**.

To install the Utility, insert the Installation CD and select the **Install SMCWAA-G PC Utility** option in the window that appears on your desktop. If no window appears, browse the CD in Explorer and double-click on **smc.exe**. When installation is complete, you will find the SMCWAA-G PC Utility in your Program list under the Windows Start Menu.

### Starting the SMCWAA-G PC Utility

From the Start menu, choose All Programs, SMCWAA-G PC Utility

When the application opens, it automatically attempts to locate all available SMCWAA-G EZ-Stream™ 802.11g Wireless Audio Adapter devices on your network, and displays those it finds in the '**Available SMCWAA-Gs**' list.

**Note:** If no network adapters are found, the following message will be displayed instead:

**No Network Adapters Found**

If this occurs, please refer to Troubleshooting on page 20.

### Managing Profiles Using the SMCWAA-G PC Utility

#### VIEWING EXISTING NETWORK PROFILES

From the main SMCWAA-G PC Utility window, if more than one SMCWAA-G is in your network, click on its name to select the SMCWAA-G you wish to configure, then click the **Profiles** button. The Factory Default (**Profile 0**) profile is displayed.

Click on the other tabs to view settings for the other three profiles. The active profile has the **Make Active** button grayed out (disabled) and an "Active Profile" icon in the top right corner of the screen.

### ACTIVATING A DIFFERENT NETWORK PROFILE

To activate a different profile for a SMCWAA-G, select the SMCWAA-G (as above), click on the required **Profile** tab and click the **Make Active** button for that profile. Click the **Close** button to return to the main window.

### EDITING A NETWORK PROFILE

The Factory Defaults profile for a SMCWAA-G cannot be edited. However, the three other profiles can be edited to create different switchable setups. To change these settings, you will need to have some knowledge of your network setup.

**Note:** The alternative profiles can be edited at any time, but any existing information in the selected profile will be overwritten once the profile has been edited and saved.

1. Display the profile to be edited (see Viewing Existing Network Profiles above).
2. Enter a personalized **Profile Name**, instead of **Audio Adapter**.
3. Enter the Service Set ID (**SSID**) for your wireless LAN.
4. By default, the profile will use the **Infrastructure** network type (i.e. an Internet Access Point is available on the network).  
**Note:** The **Ad-hoc** network type is not currently supported.
5. If you are using WEP encryption on the wireless network, click the **WEP enabled** checkbox and enter the appropriate **WEP key** and the **Key index**.
6. If you are using a proxy server, check the **Use Proxy Server** checkbox. Enter the Proxy server as an IP address (example **192.167.0.10**) or as a name (example **my.proxy**). The Proxy port number must be a numeric value (usually port **80** or **8080**).
7. To get a dynamic IP address automatically from a DHCP server for the SMCWAA-G, select the **Use DHCP** checkbox.
8. If the SMCWAA-G needs a fixed IP address, leave the **Use DHCP** checkbox unchecked and enter the **IP Address** for the SMCWAA-G, as well as the **Netmask** (Subnet mask), and IP addresses for the **Gateway**, **DNS Server 1** (i.e. preferred) and **DNS Server 2** (alternate - optional).
9. Click the **Apply** button to confirm the changes, or click the **Refresh** button to discard changes.
10. If you want to make this profile the active profile for the SMCWAA-G, click the **Make Active** button. Click the **Close** button to return to the main window.
11. Click the **Discover** button to verify that the SMCWAA-G can still be found on the network after you have made these changes. **Note:** This check is generally done automatically on saving changes.

### VERIFYING THAT A SMCWAA-G IS AVAILABLE ON THE NETWORK

When you start the SMCWAA-G PC Utility, it performs an automatic discovery process to verify which SMCWAA-Gs are available on the network. It is recommended that you perform this discovery process manually after editing any network profiles, to ensure that your computer can still communicate with the SMCWAA-G.

To verify that a SMCWAA-G is available on the network, from the main utility window, click the **Discover** button. A list of available SMCWAA-Gs will be displayed in the main window.

## Uploading New Software to the SMCWAA-G

Check the SMC Website for new software versions. When new software becomes available, the Software Upload Wizard in the utility will help you to install it on your SMCWAA-G.

1. Start the SMCWAA-G PC Utility (see Starting the SMCWAA-G PC Utility on page 17).
2. From the main SMCWAA-G PC Utility window, highlight the SMCWAA-G to be upgraded and click the **Upload Software...** button.



## **SMCWAA-G EZ-Stream™ 802.11g Wireless Audio Adapter**

3. The wizard displays details of the currently installed software for the SMCWAA-G and a warning notice. Click the **Cancel** button to cancel the upload or the **Next** button to proceed.
4. Select a valid software file (.bcd file) and click the **Open** button. If the file selected is invalid, an error will be displayed.
5. The wizard displays a warning and asks for confirmation. Click the **Cancel** button to cancel the upload or the **Next** button to proceed.

**Note:** This process may take a while and **MUST NOT** be interrupted. The current software is erased and the new software is uploaded to the SMCWAA-G. A message is displayed when the upload has been completed successfully. If an error message appears, or if you see the words '**Download mode**' in the **Active Profile** column instead, it means that the software upload has failed. Turn off and turn on power to the device before attempting the upload again.

### **Performing a Hard Reset to Factory Settings**

If you wish to reset the SMCWAA-G to its factory settings, you should activate the **Factory Default** profile, using the SMCWAA-G PC Utility (see page 18).

If this is not possible for any reason, you can also perform a hard reset on the device itself, as follows:

1. Ensure that the SMCWAA-G is turned ON
2. Insert a straightened paperclip into the small hole on the rear of the device, between the ethernet and power connectors
3. Press gently - you should feel the reset button clicking into action. Hold the reset down for 10 seconds, then remove the paperclip.

The SMCWAA-G will restart with its original factory settings. See page 10 for basic setup instructions.

### **Firewall Settings**

This section contains suggestions on how to configure your firewall to ensure correct SMCWAA-G operation.

Ensure communication with both the UPnP framework and the *Musicmatch Jukebox* (normally C:\Program Files\MUSICMATCH\MUSICMATCH Jukebox\mmjb.exe) are supported by the Firewall.

The Windows XP firewall helps you to set the right privileges by showing a screen every time a communication is blocked. This offers you the option of enabling this communication in future.

Other firewalls offer different ways of opening the necessary ports: consult your Firewall documentation for further information.

**IMPORTANT:** If you are using a wireless Gateway or Access Point and there is a firewall in place, multicast messages may need to be enabled for the media server program in order to allow traffic to/from the SMCWAA-G.

## Troubleshooting

### Troubleshooting Chart

Problem	Possible Cause	Solution
Nothing appears on the display when the SMCWAA-G is switched on.	Power unavailable.	Check that the SMCWAA-G power cable is properly connected and that the power is switched on.
	SMCWAA-G is not known to the network.	Check that the MAC address for the SMCWAA-G has been entered correctly in the wireless network's MAC Access Control. Turn off the SMCWAA-G and turn it on again.
	Internet unavailable.	Check that the Internet access point has an active connection to the Internet.
	Wireless network incorrectly configured.	Open the SMCWAA-G PC Utility and select the SMCWAA-G that has the problem. Click the Profiles button and check that the active profile is correctly configured for your network. Turn on the SMCWAA-G and ensure that the correct profile has been selected under Network Profiles.
Cannot connect to an Internet Radio station after pressing "Play" and an error is displayed/ The SMCWAA-G does not react to remote control commands and hangs in the UPnP Menu structure.	You are connected to a station that is running, but it is not currently broadcasting any music.	Try again later or choose another station.
	The buffer is full (everything else seems normal).	Wait a few seconds until the buffer clears. If the problem persists, turn off the SMCWAA-G and turn it on again.
	Station is not up.	Try looking up the station's Web site to see if there are any changes. Try a different Internet Radio station.
	There is a VPN (Virtual Private Network) running on your PC.	Disable the VPN while running the SMCWAA-G for troubleshooting purposes. <b>Warning:</b> this may adversely affect other programs and data - proceed with caution.
	The Internet Access Point and the PC are not on the same subnet.	The Internet access point and the PC must be on the same subnet.
	The Internet Access Point has a MAC filter enabled.	Add the MAC address of the SMCWAA-G to the exception list.
	Your PC is running a third party software firewall that is preventing access to Internet Radio.	Traffic to/from the SMCWAA-G must be enabled for the media server program. Change your firewall settings to enable multicast messages for the media server program. If the above solution does not work, disable the firewall for troubleshooting purposes. <b>Warning:</b> this may adversely affect other programs and data - proceed with caution.
	Your PC is using the Microsoft built-in firewall.	Traffic to/from the SMCWAA-G must be enabled for the media server program. Change your firewall settings to enable multicast messages for the media server program. (239.255.255.xxx) If the above solution does not work, disable the firewall for troubleshooting purposes. <b>Warning:</b> this may adversely affect other programs and data - proceed with caution.
	Your PC uses a Microsoft packet filter.	Disable the packet filter for troubleshooting purposes. <b>Warning:</b> this may adversely affect other programs and data - proceed with caution.
	Your PC uses a static IP address and therefore does not access a DHCP server.	Use a different network profile that allows for a fixed IP address. See Advanced Settings on page 14.
	This can be caused by network delays when sending out UPnP requests.	Wait a few seconds and try again. If the problem persists, turn off the SMCWAA-G and turn it on again.



## SMCWAA-G EZ-Stream™ 802.11g Wireless Audio Adapter

Problem	Possible Cause	Solution
Unable to browse music files.	No music files in the Musicmatch Music Library.	Build a library, following the instructions in Setting up a Musicmatch Library on your PC on page 12.
	UPnP server is not running.	If running Musicmatch, follow the instructions in item 4 of Installing Musicmatch on page 9. If the server is already running, try un-checking the Enable Music Server box (the Status: message will change to <b>Not Running</b> ), then re-check it to re-start the server. If using a different media server, refer to the documentation for that server to start it.
After accessing an Internet Radio station, the device does not playback other Internet Radio stations.	-	Turn off the SMCWAA-G and turn it on again.
Presets do not work anymore after a new CD is ripped or a server is reset.	There are limitations regarding the presets, depending on the PC Server tool used (e.g. Musicmatch, EZ Server, Intel, Mediabolic).	The PC server software may not be fully compatible with the UPnP specification. There is no workaround other than storing the presets again.

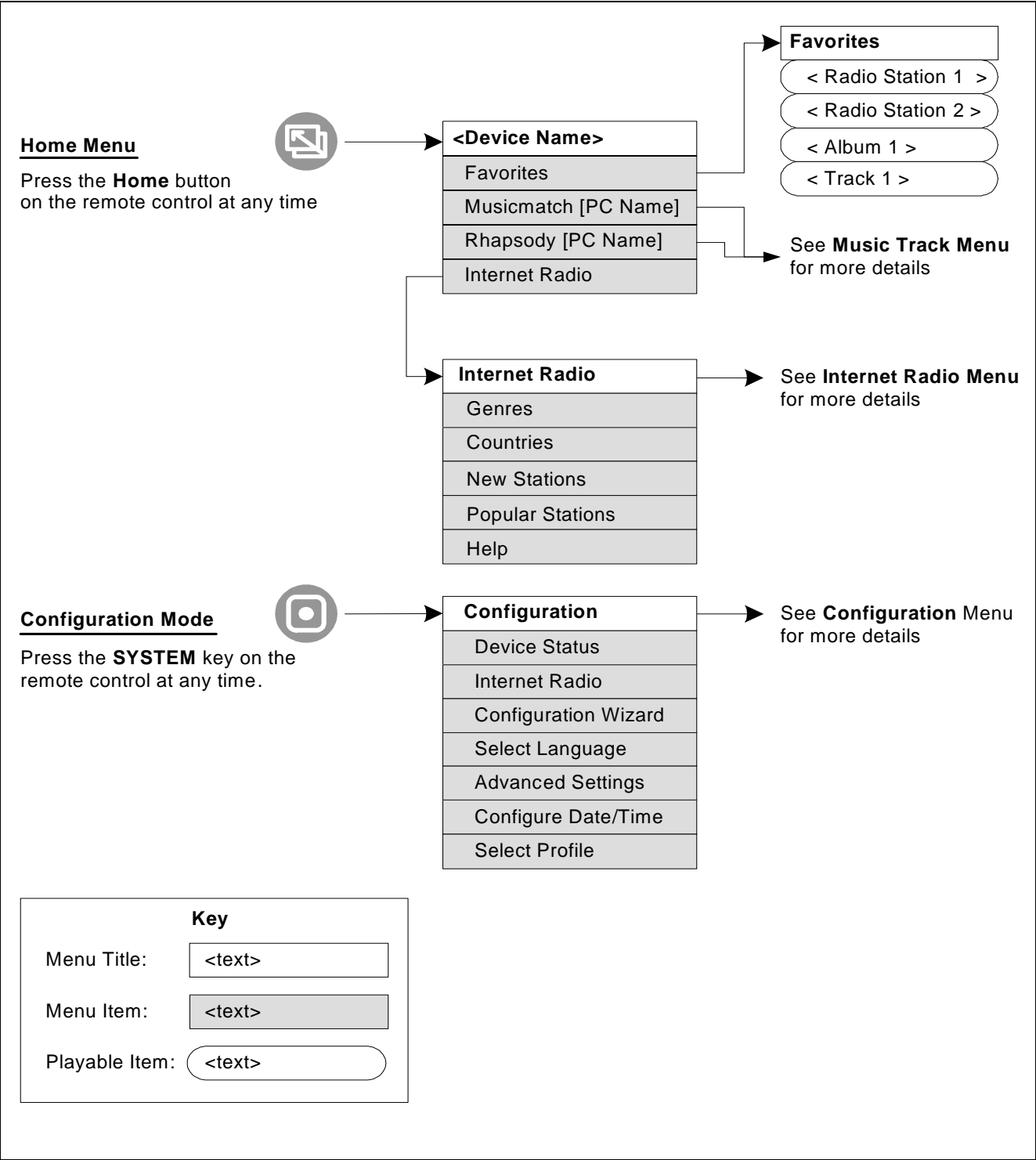
## Error Codes

The SMCWAA-G LCD screen may display the following error codes in the event of a problem:

Error Code	Explanation
Update. Please wait.	The Internet Radio station list is updated automatically from the Internet on a regular basis or when you choose to do a manual update. Play mode is not accessible during this update.
Favorites List full.	The Favorites list is limited to 20 items. Replace an existing item with the new item. See Using Presets and Favorites on page 13 for details.

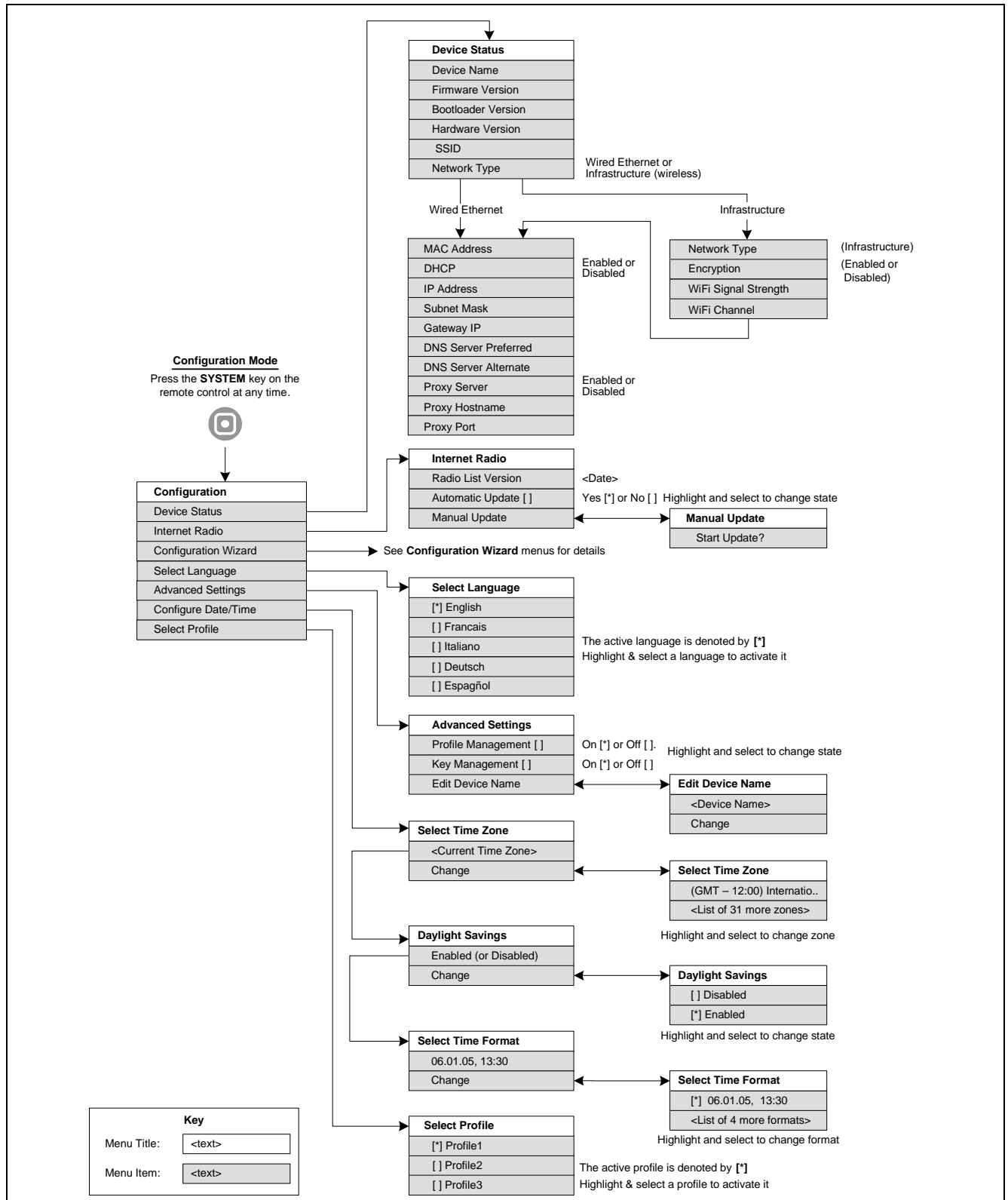
Menu Tree Diagrams

Top Level Menus



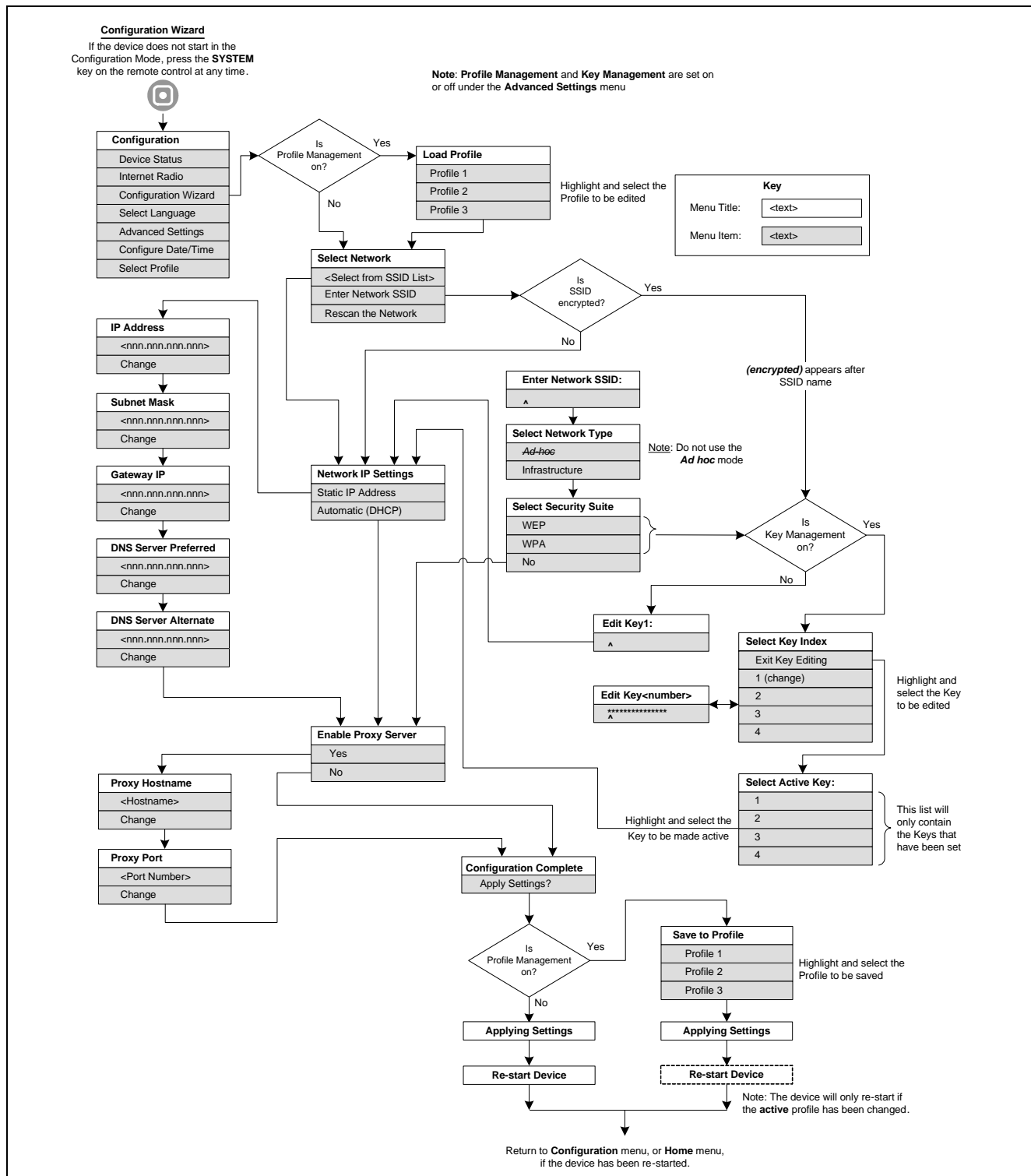
## SMCWAA-G EZ-Stream™ 802.11g Wireless Audio Adapter

### Configuration Mode Menus

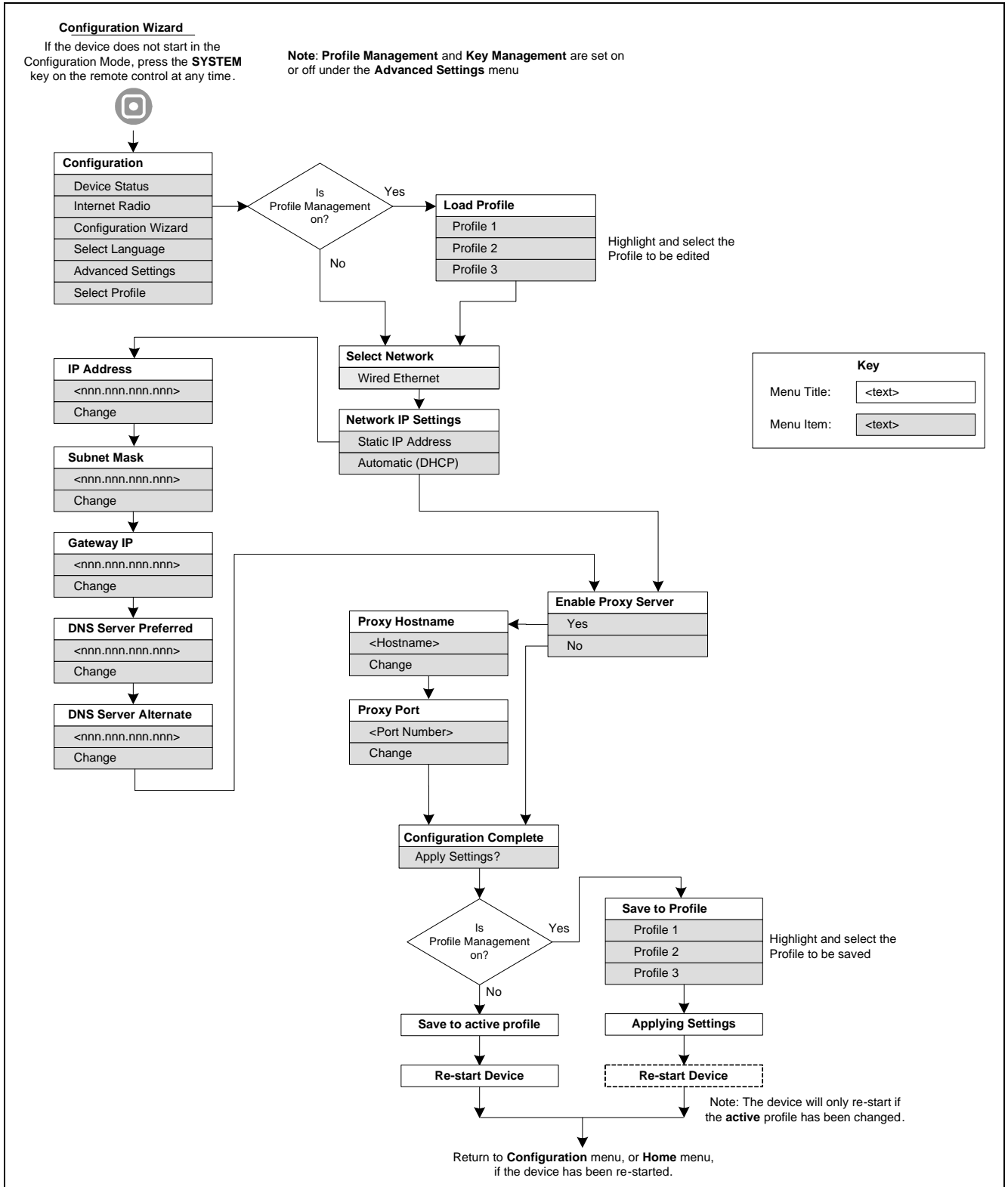


## Configuration Wizard Menus

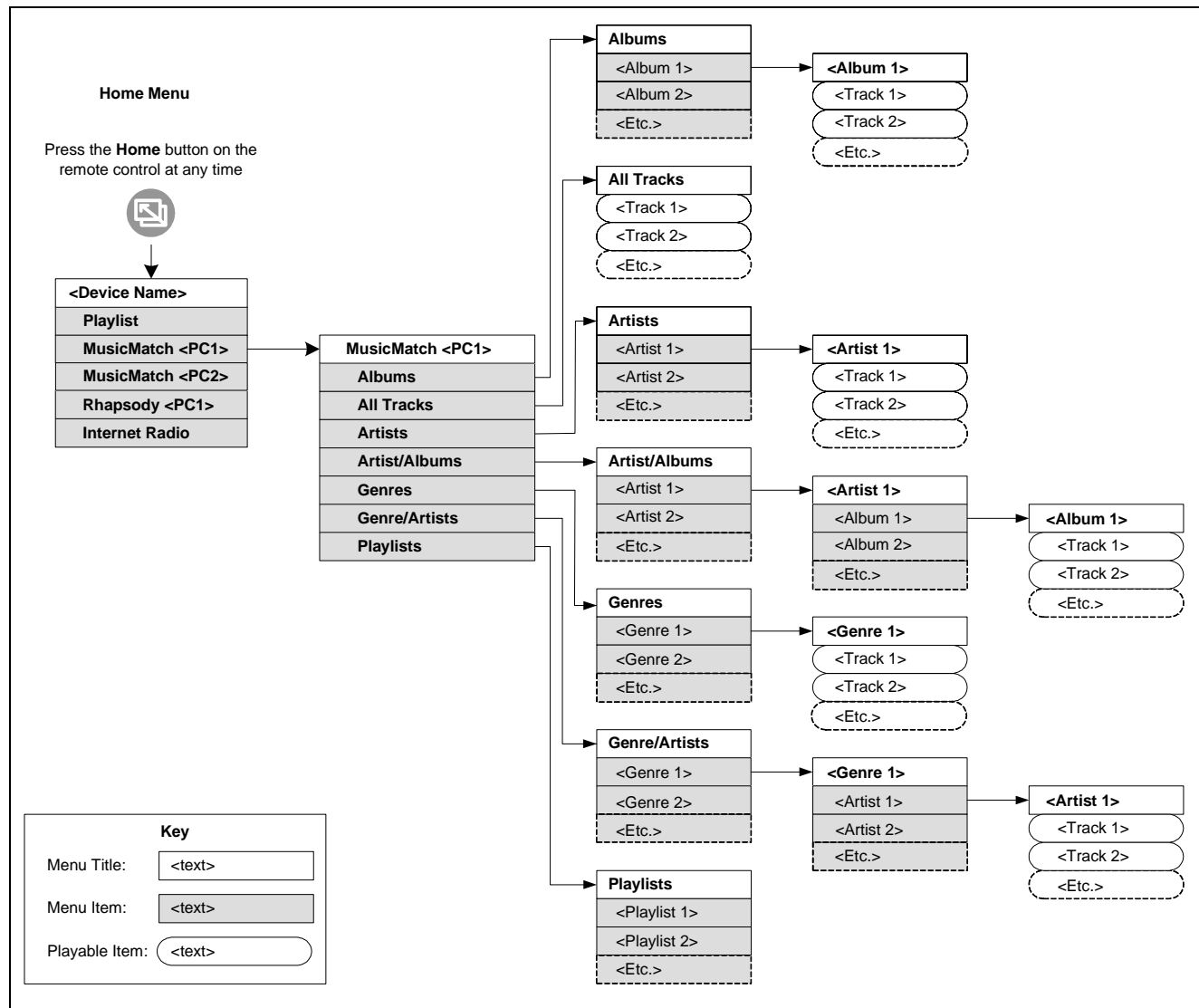
### Wireless LAN Configuration Wizard



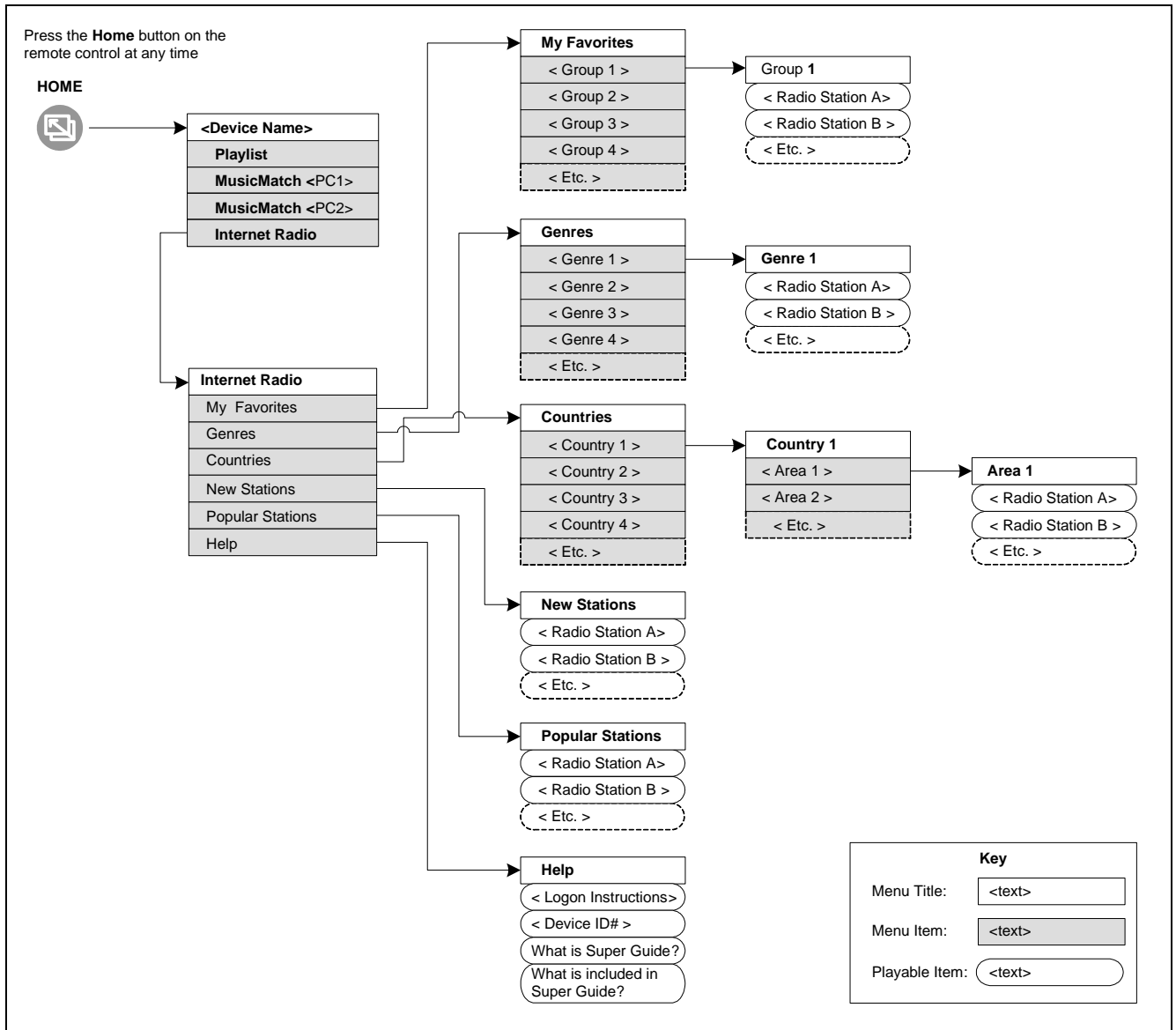
### Wired Ethernet Configuration Wizard



## Music Track Menus



### Internet Radio Menus



## Technical Specifications

### Standards

- IEEE 802.11b
- IEEE 802.11g
- Universal Plug-and-Play (UPnP)

### Wireless Data Rates with Automatic Fall-back

- 802.11b - 1/2/5.5/11Mbps
- 802.11g - 6/9/12/18/24/36/48/54Mbps

### Data Modulation Techniques

- 802.11b/g (DSSS) = BPSK, QPSK, CCK

### Radio Signal Type

- Direct Sequence Spread Spectrum (DSSS)

### Security

- WEP (Wired Equivalent Privacy) - 64/128 bit encryptions
- WPA (Wi-Fi Protected Access) - TKIP

### Output Power

- 15dBm +/- 1 dBm

### Receiver Sensitivity

- |                              |                             |
|------------------------------|-----------------------------|
| • 802.11b - 1Mbps @ -92dBm   | • 802.11g - 12Mbps @ -79dBm |
| • 802.11b - 2Mbps @ -89dBm   | • 802.11g - 18Mbps @ -77dBm |
| • 802.11b - 5.5Mbps @ -85dBm | • 802.11g - 24Mbps @ -74dBm |
| • 802.11b - 11Mbps @ -82dBm  | • 802.11g - 36Mbps @ -70dBm |
| • 802.11g - 6Mbps @ -82dBm   | • 802.11g - 48Mbps @ -66dBm |
| • 802.11g - 9Mbps @ -81dBm   | • 802.11g - 54Mbps @ -65dBm |

### Channel Support (2.4GHz RF)

- |                             |                         |
|-----------------------------|-------------------------|
| • US/Canada - 1~11 Channels | • Europe- 1~13 Channels |
|-----------------------------|-------------------------|

### Media Access Protocol

- CSMA/CA (Collision Avoidance)

### Firmware Upgrade

- Via SMCWAA-G PC Utility

### Network Configuration

- Infrastructure





## **SMCWAA-G EZ-Stream™ 802.11g Wireless Audio Adapter**

### **Interfaces**

- Network: 802.11b/g
- Audio: SNR (A-weighted): > 100db
- Dual RCA audio L/R
- Ethernet (RJ-45)
- LCD Matrix: 2.88 x 1.44 in/ 74 x 37mm

### **File Formats**

- MP3 (MPEG- I Layer 3)
- WMA9
- WAV
- ID3 v1 or v2
- Internet Radio - vTuner
- Internet Radio - Rhapsody
- DRM10

### **Operating Systems**

- Windows 98SE, Me, 2000, XP

### **Supported Languages**

- English (Default)
- French
- German
- Spanish
- Italian

### **Remote Control**

- IR NEC Protocol

### **Compliances**

- FCC part 15 subpart C (15.247) and Class B
- ETSI 300-328/301-489-17 (General EMC requirement for RF equipment)
- CE
- Industry of Canada
- NMPR 1.0
- DNLA

### **Operating Conditions**

- Operating Temperature: 0°C to 70°C
- Storage Temperature: -15°C to +85°C
- Humidity: 5% to 95% non-condensing

### **Dimensions**

- 6.22 (W) x 3.86 (D) x 1.18 (H) inches / 158 (W) 98 (D) x 30 (H) mm.

### **Weight**

- 11oz. / 306g.

### **Power**

- 9VDC 1.2A.

## Standards Compliance

The SMCWAA-G EZ-Stream™ 802.11g Wireless Audio Adapter is designed to comply with the following standards.

Description	Country	Compliance
Electromagnetic Compatibility	USA	FCC CFR47 Part 15B, Class II
	Europe	89/336/EEC, ETS 301 489-1&17(2.4GHz) EN61000-3-2(Harmonic AC current emissions) EN55022 Class II, EN50082-1 (Immunity)
	Japan	VCCI Class II
Product Safety	International	CB (IEC60950)
Radio Regulations	USA	FCC CFR47 Part 15C, para15.247, 205, 209
	Europe	EN 300 328
	Japan	ARIB STD-T66(Chan1-13), T-33(Chan14)
	Canada	IC RSS 210

## FCC - Class B

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with instructions, may cause harmful interference to radio communications. However, there is no guarantee that the interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help

**FCC Caution:** To assure continued compliance, (example - use only shielded interface cables when connecting to computer or peripheral devices). Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

SMC Networks, Inc. declare under our sole responsibility that the product “SMCWAA-G EZ-Stream™ 802.11g Wireless Audio Adapter” complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

### Caution Statement

### ***FCC Radiation Exposure Statement***

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 5 centimeters between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

**Note:** In order to maintain compliance with the limits of a Class B digital device, SMC requires that you use a quality interface cable when connecting to this device. Changes or modifications not expressly approved by SMC could void the user's authority to operate this equipment.

Attach unshielded twisted-pair cable (UTP) to the RJ-45 port.

### **Industry Canada – Class B**

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the interference-causing equipment standard entitled "Digital Apparatus", ICES-003 of Industry Canada.

Cet appareil numérique respecte les limites de bruits radioélectriques applicables aux appareils numériques de Classe B prescrites dans la norme sur le matériel brouilleur: "Appareils Numériques," NMB-003 édictée par l'Industrie.

### **EC Conformance Declaration**

SMC contact for these products in Europe is:

SMC Networks Europe,  
Edificio Conata II,  
Calle Fructuós Gelabert 6-8, 2o, 4a,  
08970 - Sant Joan Despí,  
Barcelona, Spain.

This RF product complies with R&TTE Directive 99/5/EC. For the evaluation of the compliance with this Directive, the following standards were applied:

- Electromagnetic compatibility and radio spectrum matters (ERM)  
EN300 328-1 (2001-12)  
EN300 328-2 (2001-12)
- Electromagnetic Compatibility (EMC) Standard for radio equipment and services  
EN301 489-1  
EN301 489-17
- Safety Test  
EN60950

### **Safety Compliance**

#### **Wichtige Sicherheitshinweise (Germany)**

1. Bitte lesen Sie diese Hinweise sorgfältig durch.
2. Heben Sie diese Anleitung für den späteren Gebrauch auf.
3. Vor jedem Reinigen ist das Gerät vom Stromnetz zu trennen. Verwenden Sie keine Flüssigoder Aerosolreiniger. Am besten eignet sich ein angefeuchtetes Tuch zur Reinigung.
4. Die Netzanschlus ßsteckdose soll nahe dem Gerät angebracht und leicht zugänglich sein.
5. Das Gerät ist vor Feuchtigkeit zu schützen.
6. Bei der Aufstellung des Gerätes ist auf sicheren Stand zu achten. Ein Kippen oder Fallen könnte Beschädigungen hervorrufen.
7. Die Belüftungsöffnungen dienen der Luftzirkulation, die das Gerät vor Überhitzung schützt. Sorgen Sie dafür, daß diese Öffnungen nicht abgedeckt werden.
8. Beachten Sie beim Anschluß an das Stromnetz die Anschlußwerte.
9. Verlegen Sie die Netzanschlus ßleitung so, daß niemand darüber fallen kann. Es sollte auch nichts auf der Leitung abgestellt werden.
10. Alle Hinweise und Warnungen, die sich am Gerät befinden, sind zu beachten.
11. Wird das Gerät über einen längeren Zeitraum nicht benutzt, sollten Sie es vom Stromnetz trennen. Somit wird im Falle einer Überspannung eine Beschädigung vermieden.
12. Durch die Lüftungsöffnungen dürfen niemals Gegenstände oder Flüssigkeiten in das Gerät gelangen. Dies könnte einen Brand bzw. elektrischen Schlag auslösen.



## Glossary of Terms

Term or Abbreviation	Meaning
AP	Access Point. A device used to provide common wireless access to the Internet.
CD-ROM	Compact Disk - Read Only Memory. An optical disk used to store computer data.
DHCP	Dynamic Host Configuration Protocol. Used by a server to assign IP addresses to network devices.
DNS	Domain Name Server. A server that converts domain names to IP addresses.
Digital Rights Management (DRM)	Windows Media digital rights management is a proven platform to protect and securely deliver content for playback on a computer, portable device, or network device. The SMC SMCWAA-G supports DRM over a Windows Media Connect link.
Gateway	A device that connects two networks, for example a local area network to the Internet.
IP Address	Internet Protocol Address. A unique 32-bit logical number assigned to a device on the Internet. An IP address can be static (fixed) or dynamic (assigned by a DHCP server on connecting to the network).
Internet Radio	Radio services broadcast via the Internet.
Key Index	Number used to identify a particular encryption key in a list of several encryption keys supported by a wireless Network.
ISP	Internet Service Provider. Company that provides the service that allows you to connect to the Internet.
LCD	Liquid Crystal Display. A flat panel screen used to display characters.
MAC Address	Media Access Control Address. A unique physical number assigned to device on a network, in the format of a 48-bit hexadecimal number.
MP3	MPEG Audio Stream, Layer 3. An ISO/IEC standards-based audio file format developed by the Moving Pictures Experts Group (MPEG).
Proxy	A proxy server sits between the client and the Internet. It can retrieve requested files from its own cache or from a remote server. It is also used in conjunction with a firewall and gateway to enhance security on a network.
RCA	A standard connector plug used to connect a device to an audio device.
SSID	Service Set Identifier. A 32-character identifier attached to packet headers sent over a wireless Network that uniquely identifies the wireless LAN to which the device is attempting to connect.
Subnet Mask	Sub-network mask. A subset of a network (that consists of multiple devices) that has its own unique subnet number.
UPnP	Universal Plug and Play. Allows automatic discovery and control of networked devices and services.
WEP	Wired Equivalent Privacy. An encryption method that provides security for IEEE802.11 wireless Network systems using a 64 or 128 bit key.
WiFi	wireless Fidelity.
WMA	Windows Media Audio. An audio file format developed by Microsoft.
WPA	WiFi Protected Access. A new encryption method, developed principally for the IEEE802.11i WLAN standard.

FOR TECHNICAL SUPPORT, CALL:

From U.S.A. and Canada (24 hours a day, 7 days a week)

(800) SMC-4-YOU; Phn: (949) 679-8000; Fax: (949) 679-1481

From Europe : Contact details can be found on

[www.smc-europe.com](http://www.smc-europe.com) or [www.smc.com](http://www.smc.com)

INTERNET

E-mail addresses:

[techsupport@smc.com](mailto:techsupport@smc.com)

[european.techsupport@smc-europe.com](mailto:european.techsupport@smc-europe.com)

Driver updates:

[http://www.smc.com/index.cfm?action=tech\\_support\\_drivers\\_downloads](http://www.smc.com/index.cfm?action=tech_support_drivers_downloads)

World Wide Web:

<http://www.smc.com/>

<http://www.smc-europe.com/>

For Literature or Advertising Response, Call:

U.S.A. and Canada:	(800) SMC-4-YOU	Fax (949) 679-1481
Spain:	34-91-352-00-40	Fax 34-93-477-3774
UK:	44 (0) 1932 866553	Fax 44 (0) 118 974
8701		
France:	33 (0) 41 38 32 32	Fax 33 (0) 41 38 01 58
Italy:	39 (0) 3355708602	Fax 39 02 739 14 17
Benelux:	31 33 455 72 88	Fax 31 33 455 73 30
Central Europe:	49 (0) 89 92861-0	Fax 49 (0) 89 92861-230
Nordic:	46 (0) 868 70700	Fax 46 (0) 887 62 62
Eastern Europe:	34 -93-477-4920	Fax 34 93 477 3774
Sub Saharan Africa:	216-712-36616	Fax 216-71751415
North West Africa:	34 93 477 4920	Fax 34 93 477 3774
CIS:	7 (095) 7893573	Fax 7 (095) 789 357
PRC:	86-10-6235-4958	Fax 86-10-6235-4962
Taiwan:	886-2-87978006	Fax 886-2-87976288
Asia Pacific:	(65) 238 6556	Fax (65) 238 6466
Korea:	82-2-553-0860	Fax 82-2-553-7202
Japan:	81-45-224-2332	Fax 81-45-224-2331
Australia:	61-2-8875-7887	Fax 61-2-8875-7777
India:	91-22-8204437	Fax 91-22-8204443

If you are looking for further contact information, please visit [www.smc.com](http://www.smc.com) or [www.smc-europe.com](http://www.smc-europe.com).

**SMC**<sup>®</sup>

Networks

38 Tesla

Irvine, CA 92618

Phone: (949) 679-8000